

Application No. 10/725,215

AMENDMENTS TO THE CLAIMS

A listing of the claims presented in this patent application appears below. This listing replaces all prior versions and listing of claims in this patent application.

1. (Currently Amended) A separator for a fuel cell which functions as a separating wall between unit cells constituting a fuel cell stack and has a plurality of apertures forming channels for feeding a fuel, oxidizer or coolant in the direction of stacking the fuel cells, comprising:

a feeding manifold communicated with any of the plurality of apertures;

a plurality of channels communicated with the feeding manifold and extending in substantially parallel; and

a cover plate covering the upper surface of the feeding manifold ~~such that a distance between the undersurface of the cover plate and the bottom face of the feeding manifold is substantially equal to the depth of the channels,~~

wherein the cover plate is located in the feeding manifold such that the upper surface of the plate is substantially flush with the surface of the separator, and

a step is formed between the bottom of the channels and the bottom face of the feeding manifold such that a distance between the undersurface of the cover plate and the bottom face of the feeding manifold is substantially equal to the depth of the channels.

2. (Original) The separator for a fuel cell as claimed in Claim 1 wherein the feeding manifold is formed over the whole surface of the end of the channels.

3. (Cancelled)

4. (Currently Amended) A separator for a fuel cell which functions as a separating wall between unit cells constituting a fuel cell stack and has a plurality of apertures forming

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channels for feeding a fuel, oxidizer or coolant in the direction of stacking the fuel cells, comprising:

a feeding manifold communicated with a first aperture;

a plurality of channels communicated with the feeding manifold and extending in substantially parallel; and

a discharge manifold communicated with a second aperture; and

first and second cover plates covering the upper surfaces of the feeding and the discharge manifolds, ~~where the cover plates are made of different materials for the feeding and the discharge manifolds,~~

wherein the first and second cover plates are located in the feeding and discharge manifolds, respectively, such that the upper surfaces of the plates are substantially flush with the surface of the separator.

5. (Cancelled)

6. (Original) The separator for a fuel cell as claimed in Claim 1, comprising a sealer covering the surface of the separator.

7. (Currently Amended) The separator for a fuel cell as claimed in Claim ~~[[1]]~~ 4, wherein the feeding manifold comprises a channel-resistance regulating member having a nozzle that faces a channel over the entirety of the end of the channel.

8. (Currently Amended) A fuel cell wherein a plurality of cells for a fuel cell comprising electrodes and an electrolyte sandwiched between the electrodes are stacked via the separator for a fuel cell as claimed in Claim ~~[[4]]~~ 7.

9. (Original) The fuel cell as claimed in Claim 8, wherein the channels in the separator for a fuel cell are vertically aligned; the feeding manifold is formed in the upper part of the channels; and the discharge manifold is formed in the lower part of the channels.

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10. (Currently Amended) The fuel cell as claimed in Claim [[8]] 9, comprising a connecting channel inclined upward from the first aperture connected with the feeding manifold to the feeding manifold,

wherein the bottom of the first aperture is located below the inlet of the channel-resistance regulating member.

Claims 11-29 (Cancelled).

30. (Original) A polymer electrolyte fuel cell, wherein the features in Claims 1 and 2 are combined.

31. (New) The separator for a fuel cell as claimed in Claim 4, wherein the first and second cover plates are made of different materials.

32. (New) The separator for a fuel cell as claimed in Claim 4, comprising a sealer covering the surface of the separator.